



# NEWS

## naval meteorology and oceanography

February 28, 2013

### Commander's Corner

#### Generating Readiness: From the TYCOM to the Deckplates

By Rear Adm. Brian Brown

Some of you may have heard that Commander, U.S. Fleet Forces Command (USFF), Adm. William Gortney, in consonance with Commander, U.S. Pacific Fleet, has challenged Navy operational commanders and type commanders to better understand how we generate fleet readiness through our operations and programs. It's a challenge that I embraced and in turn, would like to pass on to all Naval Oceanography professionals.

Adm. Gortney has operationalized a new concept called the "Readiness Kill Chain" or "RKC" to form a common framework to review issues that create or destroy readiness by platform and capability through alignment of OPNAV, Systems Commands (SYSCOMS), and Fleets. The RKC provides a systemic way to identify areas that need programmatic, policy, or operational changes to deliver the highest readiness of our Navy to carry out its mission.



As the Naval Oceanography operational and type commander, we aided in the USFF development of the RKC methodology and performed and briefed an RKC analysis on our fleet weather center afloat and shore capabilities. The RKC analysis proved useful in identifying/validating issues in our manpower, training, certification, sensing, and computational/IT areas. Additionally, the RKC analysis validated some best practices/operational constructs we put into place, like the alignment of our professional development detachments within the FWCs. Our RKC analysis was well received by Adm. Gortney, who has already directed his staff to assist in addressing some of our areas of concern.

We will continue RKC analysis across all our capability areas. I expect some of our challenges, especially manpower, to be identified as readiness issues almost universally. Additionally, we will use our "as is" RKC analysis to map to a "to be" RKC end state. This will be useful in articulating our future year's requirements to OPNAV and the SYSCOMS via USFF. I will keep you informed on our progress.

Besides introducing you to this concept and the RKC term, I have another motive for discussing the RKC and the generation of readiness. While the RKC is useful at the top for planning and programming, it is probably less useful as a structure at the deck plate level. However, the idea of generating readiness is directly applicable to each and every professional in Naval Oceanography. In the execution of your particular job every day, you absolutely generate fleet readiness. We need you to be the best at your particular area of expertise –

our Navy and nation counts on you. I also need you to be the best shipmates you can be, whether you wear a uniform or not, on or off duty, to help us tackle endemic issues like sexual assault, suicide, and alcohol abuse/related incidents/DUI – all readiness killers. Where are there weaknesses in your personal “RKC” or those you lead, and how can you and your chain of command mitigate those weaknesses at your level? A good critical thinking exercise – I challenge you to take it on and help us truly generate Fleet readiness.

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## From the Deputy/Technical Director

### The Boy, the Tiger and the Snakes

By Dr. William H. Burnett

There is an old story about a boy who was walking through the jungle one day and came across a large, hungry tiger that was hidden by the jungle growth. When the boy saw the tiger, he ran away as fast as he could, with the tiger right behind him. As the tiger was getting close to the boy, ready to devour him, the boy saw a large hole in the jungle and jumped inside the hole. As he fell through the hole, the boy grabbed a branch and held on. He then realized that just below his feet was a pack of very hungry rattlesnakes, disturbed by the fall. When the boy looked up, he saw the tiger with its giant claws, but the boy was just out of reach. When the boy looked down, he saw the snakes reaching up trying to bite him, but the boy was just out of reach. As the boy was holding onto the branch, two mice came out and started to gnaw on the branch. There was no way out.



It seems that we are challenged every day, similar to the boy’s predicament. Budget shortfalls, either real or implied, are serious – especially since the workload and fleet requests for products and services remain at a high pace. Personnel impacts due to billet caps, hiring freezes and now possible furloughs also impact the workload and our ability to provide constant outstanding fleet support. Finally, outside consultants opine about our community but often do not fully understand our capabilities and the amount of savings our products and services provide to the fleet.

The current environment only enhances the crisis feeling we have due to the large amount of uncertainty in what the future will bring. But I can tell you that even with all the uncertainties and questions, Naval Oceanography is valued by the fleet, and especially by our Immediate Superior-in-Command (ISIC), U.S. Fleet Forces (USFF). Rear Adm. Brian Brown just returned from another successful trip to USFF, and with all the budget battles and financial turmoil taking place, he was able to get additional funding to support our aviation services. The CNMOC staff is working many long hours with USFF to ensure we have adequate funding and human capital to protect the Navy and continue our services. The USFF Commander, Adm. William Gortney, is targeting next month to visit us to get a better understanding of our capabilities. As with all of our visitors, I predict that he will leave with a greater understanding of how we deliver the warfighting advantage to the Fleet and even higher respect for our Naval Oceanography Team. Thanks to everyone across command sustainment services and operations who earned us the fleet and highest levels of Navy leadership recognition.

So, back to the boy in the jungle. Just as his branch was about to break, the tiger reached too far into the hole and fell in, crushing the rattlesnakes and breaking the tiger’s neck. The boy was able to crawl out of the hole and run home. Everyone lived happily ever after.

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## From the Command Master Chief

### Enlisted IPT Moves to Phase II

By Master Chief Aerographer's Mate (IDW/AW/SW) Ken Walker  
NMOC Team,

In my first article I wrote about the Enlisted Community Health Integrated Project Team (IPT) we established to find both temporary and long-lasting solutions to our enlisted manpower and manning challenges. We have completed the first phase of that charter and have evaluated the current and projected manning levels for the rating. In doing so, we placed a significant emphasis on evaluation of the quantity of AGs with the 7412 NEC and are tracking that subset of our population on a monthly basis for the first time. We still have a significant deficit of 7412s in the rating and the number one thing we can do to fix that issue is continue fill our C school seats. Of note, we left 86 seats vacant between FY09 and FY12, which if filled would have all but erased our current deficit. All of the Senior Enlisted Leaders have a copy of the Phase I outbrief that was given to Rear Adm. Brian Brown and would be more than happy to discuss it with anyone who is interested.



As we move into Phase II of the charter, we will be evaluating the entire AG training continuum. Manning issues and concerns identified in Phase I, recent operational course changes, technological advancements, and the new World Meteorological Organization (WMO) Regulation 258 Standards for Aviation Forecasters resulted in new work or revised processes and requirements for accomplishing that work. The new work or revised processes include, but are not limited to:

- Consolidation of weather operations and services
- Application of stochastic models, ensemble prediction systems, and probabilistic forecasting techniques
- Addition of unmanned systems mission support
- Implementation of academic standards for Aviation Forecasters to qualify as WMO Aeronautical Meteorological Forecasters (AMF)
- Formal education available to develop master's level forecasters

These factors trigger the need for a complete AG Learning Continuum Human Performance Requirements Review (HPRR) to include AG Occupational Standards, AG-C1 course content, PDC/PDD content, job specific training, Personnel Qualification Standards (PQS), and Job Qualification Requirements (JQR). If you have input on the content, timing or manner in which AGs are trained, this is the time to bring it forward. The senior enlisted leaders will be heavily involved in this process, so please get them your input so they can represent your concerns and/or ideas.

Since current budgetary constraints on travel prevent me from meeting with you all personally, I would like to use these articles to help fill the gap by answering your questions. Please send any questions you might have to the CNMOC Public Affairs Office for consolidation ([cathy.willis@navy.mil](mailto:cathy.willis@navy.mil) or [george.lammons@navy.mil](mailto:george.lammons@navy.mil)) and I will include a Q&A section in future articles.

Keep the Navy safe and the advantage to the warfighters!

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## From the Enlisted Detailer

### Pay Attention to Detailing Changes

By Master Chief Aerographer's Mate (AW/SW) Mark Mageary, AG Detailer  
Team METOC,

As we all know there have been a few changes in the detailing world over the last few months. One of the changes is that if you are an AG1, AG2 or AG3 7412 and there are billets advertised on CMS/ID in your detailing window you can apply for them. Now what exactly does this mean? Let's say you are an AG1 going to sea duty and there is only one AG1 sea duty billet being advertised on CMS but there are AG2 or AG3 7412 billets being advertised. Well, you should be applying for the one AG1 billet and then you can also apply for the other paygrades as well.

As always, if there are any questions please feel free to contact me.

## News

### Apollo 13 Astronaut Visits Navy Supercomputer Center

Apollo 13 astronaut and Mississippi native Fred Haise visited the Navy Department of Defense Supercomputing Resource Center (DSRC) at Stennis Space Center, Miss., for a tour of the center's three new supercomputers -- all named for NASA astronauts who have served in the Navy, including Haise who trained as a naval aviator.

The two other systems are named for retired Cmdr. Susan Still Kilrain, a naval aviator and space shuttle pilot, and retired Capt. Eugene Cernan, a naval aviator and the last man to step foot on the moon.

"Today, we are proud to recognize the contributions of an iconic American and native Mississippian," said Dr. William H. Burnett, deputy commander and technical director of the Commander Naval Meteorology and Oceanography Command at Stennis Space Center. "Just as Fred Haise has made a great impact on the state, the Navy and the nation, so will the supercomputer named after him."

The IBM iDataPlex systems were installed in the fall of 2012 and became operational in January. The Navy DSRC is one of five Defense Department supercomputer centers that Navy, Army and Air Force scientists and researchers use to design tools and weapons systems that support DoD's global mission.



Rick Gilbrech, director of Stennis Space Center; Dr. Bill Burnett, deputy commander and technical director of the Naval Meteorology and Oceanography Command; Fred Haise, Apollo 13 astronaut and former Marine Corps fighter pilot; John West, Director, Defense High Performance Computing Modernization Program; at the Navy Department of Defense Supercomputing Resource Center (l-r). Haise toured the center because one of three new supercomputer systems was named for him. U.S. Navy photo

## DECISION SUPERIORITY through BATTLESPACE ON DEMAND

The new systems have tripled the supercomputing capability of the DSRC, already one of the most powerful supercomputer centers within the Defense Department.

“The fact that I’m here today was dependent on computers,” Haise said. “We went to the moon on one tenth of a megabyte [of memory]. For four days we had no computer on board at all. That was the springboard of what is happening today in the computer world.”

The DSRC’s current supercomputing capacity is 866 trillion floating point operations (teraflops) a second. One hundred high school students with handheld calculators would take nearly 317 years to perform the number of calculations a one teraflop-rated computer can accomplish in one second—and almost 275,000 years to perform what the new Navy DSRC supercomputers will be capable of every second. The DSRC is expected to increase its capacity to approximately 5,200 teraflops by 2016.

Haise, a native of Biloxi, Miss., completed Navy flight training in 1954 and served as a U.S. Marine Corps fighter pilot and also served in the U.S. Air Force. His career with NASA spanned 20 years. He flew as the lunar module pilot for NASA’s Apollo 13 space mission and as backup lunar module pilot for Apollo 8 and 11 and backup spacecraft commander for Apollo 16.

The Navy DSRC is a part of the Department of Defense High Performance Computing Modernization Program (HPMCP). For 19 years, the Navy DSRC has been recognized as one of the top 15 most capable supercomputing facilities in the world.

### Newest Satellite Altimetry Sensor Launched

The SARAL (Satellite with ARGOS and AltiKa) mission carrying the newest ocean surface altimetry sensor, AltiKa, was successfully launched on Feb. 25.

Global measurements from space-based radar altimetry sensors provide accurate, consistent, and repeated measurements of the shape of ocean’s surface. Satellite altimetry measurements are critical to the Navy’s ocean forecast systems, which support a number of fleet operations including ship safety and routing, and anti-submarine warfare.

The SARAL mission is a collaborative program between the French Space Agency (CNES) who built the radar altimetry sensor and the Indian Space Agency (ISRO) providing the PSLV launch vehicle. The new sensor, called AltiKa, is an innovative Ka-band altimeter designed to accurately measure the ocean’s surface height and topography. The Naval Meteorology and Oceanography Command was able to secure access to this data at no cost to the Navy and has been working with NRL-Stennis and the Naval Oceanographic Office’s (NAVO) Synoptic Data Division to ensure that NAVO’s altimetry processing system is updated with algorithms to ingest and process the new AltiKa data stream for use in Navy forecast models.



Artist rendition of the SARAL satellite with AltiKa sensor in orbit." Image courtesy Centre National d'Etudes Spatiales (CNES)

### FWC Norfolk Changes Commanders

Capt. Raymond R. Delgado relieved Capt. William H. Nisley II as commanding officer of Fleet Weather Center, Norfolk (FWC-Norfolk), on Feb. 1, during a change of command ceremony in Devary Hall on Naval Station Norfolk.

## DECISION SUPERIORITY through BATTLESPACE ON DEMAND

Capt. Van Gurley, commanding officer of the Naval Oceanography Operations Command, was the guest speaker at the ceremony. Nisley will become the Staff Meteorology and Oceanography Officer for U.S Fleet Forces Command

Capt. Delgado most recently served as the Staff Oceanographer and Current Operations Director (COPS) for Commander, Third Fleet, in San Diego

From left to right: Capt William H. Nisley II, Capt. John V. Gurley, Capt. Raymond R. Delgado III, CDR Glen Wood rendering honors during the singing of the National Anthem at FWC-N Change of Command ceremony. U.S. Navy photo



## Items of Interest



### FST Trains in the Pearl River

From left to right: Aerographer's Mate 2nd Class Christopher Kyall, Ensign Patricia Ford, Lt. j.g. Jon Lagrew and Chief Aerographer's Mate Paul Stimson, Fleet Survey Team, conduct expeditionary survey vessel coxswain training in the Pearl River, Feb. 6, Stennis Space Center. Kyall prepares to launch Stimson as they simulate shallow water surveying operations used to clear channels and harbors for larger craft. U.S. Navy photo by Lt. Rino Guerrero

### Australian Agreement Signed

Rear Adm. Brian Brown, commander of the Naval Meteorology and Oceanography Command, greets Martin Rutherford (right), Maritime Military Geospatial Information and Service Director of the Royal Australian Navy, after signing an agreement with the Australian Navy that has been 10 years in the making. U.S. Navy photo by George Lammons



## Personnel

### Dr. Ken Johnson Retires as Naval Observatory's Chief Scientist

Dr. Ken Johnson (left), Chief Scientist at the U.S. Naval Observatory, accepts a framed commemorative plaque at his office at the observatory from Dr. Bill Burnett, deputy commander and technical director of the Naval Meteorology and Oceanography Command, on the occasion of Johnson's retirement. U.S. Navy photo



### After 35 Years, Spence Ready for Another Line of Work

By Kelly LeGuillon, CNMOC Public Affairs

Brenda Spence of the Naval Oceanographic Office (NAVO) spent 35 years as a federal employee until she retired in January. Her advancement during that time, from GS-3 clerk to chief of contracts, proves that loyalty, hard work and common sense are the keys to success, particularly common sense.



"You have to use your head," she said. "You have to find the balance between following regulations and meeting mission requirements. Just do what makes good business sense – and don't be afraid to make a decision."

It was a lesson that she learned early, even though working conditions have changed dramatically in the last 35 years.

"When I came into contracting in the late '70s, the contracting shop was in an open area in (Bldg.) 9134 (at Stennis Space Center) with purchasing agent desks aligned against the windows and procurement clerks in the center of the room,"

she said. "There were no partitions and definitely no privacy. There were smokers in the office and ash trays on the desks. All your business was done via telephone. Everything over \$500 required competition. Three vendors were phoned, requirements given, and the purchasing agent waited for the three quotes to be phoned back or the quotes to be submitted via fax.

"The contracting operation at NAVO has come a long way since the early days of phone quotes, IBM Selectrics and tracking by 3X5 cards. Anytime I had to experience an NMCI issue, Outlook outage or the contract award taking a little longer than anticipated, I recalled those early days of smoked filled offices, ringing telephones, IBM typing, carbon forms and counting 3X5 cards, it becomes clearer just how far we have come," she said.

Spence doesn't expect to be bored in retirement.

"I'm looking forward to travelling, spending time with my grandkids and being more involved in my church," she said.

She is excited to have more time for herself, but there is one thing she will miss the most from her work at NAVO.

"The people," she said. "The people are what make working here so great."

## Command Spotlight: FNMOC

Fleet Numerical Meteorology and Oceanography Center (FNMOC) is the Department of the Navy's operational numerical weather prediction (NWP) production center. FNMOC provides continuous, global, high-resolution, real-time, operational decision superiority enabling METOC support to U.S. Navy, joint and coalition forces, and other U.S. government agencies. Mission specific environmental forecasts enhance fleet safety, warfighting effectiveness, and operational success.

The newest NWP development at FNMOC is the release of the NAVy Global Environmental Model (NAVGEN) replacing the Navy Operational Global Atmospheric Prediction System (NOGAPS) of 32 years. The transition to NAVGEN is a significant advancement for Navy NWP, directly improving support to the fleet by the METOC community. NAVGEN includes a semi-Lagrangian dynamical core and many revisions to the atmospheric physics parameterizations providing a significant improvement in forecast skill over NOGAPS and a significant capability to increase model resolution with near-future model upgrades.

NAVGEN is operational and running in parallel with NOGAPS from Feb. 13 to March 13, at which time the transition will be complete, and NAVGEN will be the Navy's operational model. For additional information, including excerpts from the NAVGEN operational test report, please visit the NOGAPS to NAVGEN transition pages:

NIPR: <https://nepoc.oceanography.navy.mil/portal/web/fnmoc/home>

SIPR: <http://nepoc.oceanography.navy.smil.mil/portal/web/fnmoc/home>

Transition schedule:

-Feb. 13 With the 13/12z run, NAVGEN and NOGAPS will be available to operational customers on FNMOC's operational servers.

-March 13 A complete transition from NOGAPS to NAVGEN. NAVGEN will be run as the Navy's operational global model. NOGAPS will no longer be available.

### FNMOC Spotlight Employees

Dr. Jeff Tessmer  
Satellite Meteorologist



Dr. Jeff Tessmer's efforts sustain the ever increasing demand for high resolution atmospheric and oceanographic model forecasts and products for the fleet. His responsiveness to the fleet includes rapidly creating multiple SatFocus areas to meet global operational requirements. Furthermore, he provides exceptional on-call troubleshooting by identifying and resolving internal hardware causalities and external data routing issues minimizing the loss of NWP forecast skill. Recently, during the Defense Meteorological Satellite Program (DMSP) refresh project, the delivered system was plagued with issues. Understanding the value of access to a new and critical special sensor data source, Dr. Tessmer engaged the contracting source and together worked through the new hardware and software integration issues and coding changes necessary to bring the additional satellite data online increasing NWP skill and enhancing the command's mission.

Mr. Frank Palazzo  
Information Technology Services Department-Networks Division (N61)



Mr. Frank Palazzo set an outstanding example for performance as a supervisor as well as a technical contributor to FNMOC operations. Following the departure of the network engineer, he stepped in to fill some of the void and significantly increased the productivity of his remaining personnel through effective coaching of four junior- or journeyman-level employees. The networks team supported three ST&E inspections with very few findings and minimal negative impact on ATO/ATC. Mr. Palazzo carried more of the technical load initially but has coached his team to perform well with new and additional responsibilities. Between Mr. Palazzo's personal technical work and his leadership of the networks division, significant network upgrades were completed on time, secure network posture maintained, and external inspections have been completed with praise from DISA and CNMOC inspectors

## Social Media

Follow Naval Oceanography on Facebook and @navyoceans on Twitter to keep up with all the latest news and images from the Naval Meteorology and Oceanography community.

Rear Adm. Brian B. Brown, USN  
Commander, Naval Meteorology and Oceanography Command  
Naval Meteorology and Oceanography Command News  
1100 Balch Boulevard, Stennis Space Center, MS 39529

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Naval Meteorology and Oceanography Command editorial staff:

|                                   |                   |
|-----------------------------------|-------------------|
| Public Affairs Officer            | Cathy L. Willis   |
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Tel: (228) 688-4384 • Fax: (228) 688-4880 • E-mail: [cathy.willis@navy.mil](mailto:cathy.willis@navy.mil)